52981 公報

(12)特許協力条約に基づいて公開された国際出願

(19) 世界知的所有権機関
国際事務局

(43) 国際公開日
2004 年4 月8 日 (08.04.2004)

PCT

(10) 国際公開番号
WO 2004/029615 A1

(51) 国際特許分類[7]: G01N 33/22, 25/18, 27/22, F02D 41/32, 45/00, F02P 5/15

(21) 国際出願番号: PCT/JP2003/012505

(22) 国際出願日: 2003 年9 月30 日 (30.09.2003)

(25) 国際出願の言語: 日本語

(26) 国際公開の言語: 日本語

(30) 優先権データ:
特願2002-286669 2002 年9 月30 日 (30.09.2002) JP

(71) 出願人 (米国を除く全ての指定国について): 三井金属鉱業株式会社 (MITSUI MINING & SMELTING CO., LTD.) [JP/JP]; 〒141-8584 東京都 品川区 大崎一丁目１１番１号 Tokyo (JP).

(72) 発明者; および

(75) 発明者/出願人 (米国についてのみ): 川西 利明 (KAWANISHI,Toshiaki) [JP/JP]; 〒362-0021 埼玉県 上尾市 原市１３３３の２ 三井金属鉱業株式会社 総合研究所内 Saitama (JP). 山岸 喜代志 (YAMAGISHI,Kiyoshi) [JP/JP]; 〒362-0021 埼玉県 上尾市 原市１３３３の２ 三井金属鉱業株式会社 総合研究所内 Saitama (JP). 高畑 孝行 (TAKAHATA,Takayuki) [JP/JP]; 〒362-0021 埼玉県 上尾市 原市１３３３の２ 三井金属鉱業株式会社 総合研究所内 Saitama (JP).

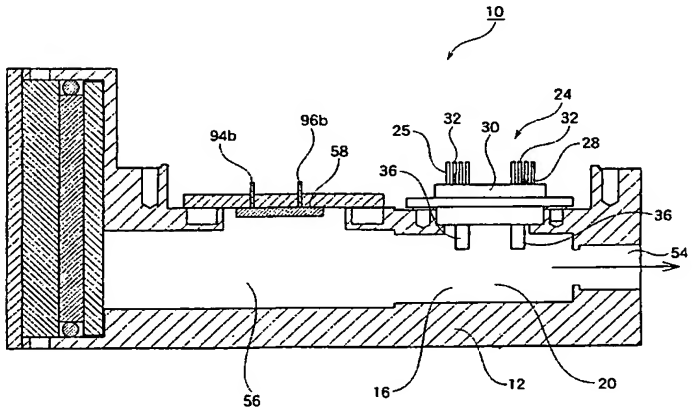
(74) 代理人: 鈴木 俊一郎 (SUZUKI,Shunichiro); 〒141-0031 東京都 品川区 西五反田七丁目１３番６号 五反田山崎ビル６階 鈴木国際特許事務所 Tokyo (JP).

(81) 指定国 (国内): US.

[続葉有]

(54) Title: GASOLINE THE IDENTIFICATION SYSTEM AND METHOD FOR IDENTIFYING GASOLINE TYPE

(54) 発明の名称: ガソリンの液種識別装置およびガソリンの液種識別方法



(57) Abstract: The types of gasoline of various compositions having different distillation characteristics can be identified accurately and quickly. A pulse voltage is applied for a predetermined time to an identification sensor heater having a heater and a liquid temperature sensor for identification arranged in the vicinity of the heater, so that a gasoline to be identified is heated by the heater. The type of gasoline is identified by a voltage output differential (VO) corresponding to a temperature differential between the initial temperature and the peak temperature of the liquid temperature sensor for identification. An alcohol concentration sensor senses the alcohol concentration of the gasoline by feeding the gasoline between electrodes of the alcohol concentration sensor and measuring a change in the relative dielectric constant of the gasoline between the electrodes by oscillation frequency. Referring to previously stored alcohol concentration data in an identification control unit, liquid identification data in the identification control unit are corrected using the sensed alcohol concentration, thereby identifying the type of gasoline.

(57) 要約: 蒸留性状の相違する様々な組成のガソリンについて、正確にしかも迅速にガソリンの種類を識別する。ヒーターと、ヒーターの近傍に配設された識別用液温センサーとを備えた液種識別センサーヒーターに、液種識別センサーヒーターに、パルス電圧を所定時間印加して、ヒーターによって、被識別ガソリンを加熱し、識別用液温センサーの初期温度とピーク温度との間の温度差に対応する電圧出力差V0によって、液種を識別するとともに、アルコール濃度検出センサーの電極間にガソリンを

[続葉有]

WO 2004/029615 A1

(84) 指定国 (広域): ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

添付公開書類:
— 国際調査報告書

導入することによって、電極間でのガソリンの比誘電率の変化を発振周波数で計測することによって、ガソリン中のアルコール濃度を検出するアルコール濃度検出装置によって検出されたアルコール濃度に基づいて、識別制御部における液種識別データーを、予め識別制御部に記憶されたアルコール濃度データーに基づいて補正して、液種識別をする。

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/12505

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] G01N33/22, G01N25/18, G01N27/22, F02D41/32, F02D45/00, F02P5/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] G01N33/22, G01N25/18, G01N27/22, F02D41/32, F02D45/00, F02P5/15

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 4-76451 A (Japan Electronic Control Systems Co., Ltd.), 11 March, 1992 (11.03.92), (Family: none)	1-34
Y	JP 11-153561 A (Mitsui Mining & Smelting Co., Ltd.), 08 June, 1999 (08.06.99), (Family: none)	1-34
Y	JP 7-306172 A (Mitsubishi Electric Corp.), 21 November, 1995 (21.11.95), & DE 19517390 A & US 5594163 A	1-34

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search 05 December, 2003 (05.12.03)	Date of mailing of the international search report 16 December, 2003 (16.12.03)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1998)